Robust And Stealthy Video **Title Of Invention** Watermarking Into Regions Of Substitute for form 1449/PTO Successive Frames 09/843,287 **Application Number INFORMATION DISCLOSURE** Filing Date 04/24/2001 **STATEMENT BY APPLICANT** Ramarathnam Venkatesan First Named Inventor (use as many sheets as necessary) Art Unit 2621 Johns, Andrew W. **Examiner Name**

Attorney Docket Number

171146.01

	U.S. PATENT DOCUMENTS				
Examiner Initials*	Cite No.¹	U.S. Patent Document Number - Kind Code ² (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Oted Document	Pages, Columns, Unes, Where Relevant Passages or Relevant Figures Appear
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	FOREIGN PATENT DOCUMENTS					
Examiner initials*	Cite No. ³	Foreign Patent Document Kind Code ³ Country Code ³ Number ⁴ (If known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	Ţŧ
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AV	С	I. J. Cox, J. Killian, T. Leighton, and T. Shamoon, "A secure robust watermark for multimedia," <i>Information Hiding Workshop</i> , University of Cambridge, pp. 185—206, 1996.		
AV	D	B. Chen and G. W. Wornell, "Digital watermarking and information embedding using dither modulation," <i>Proc. IEEE Workshop on Multimedia Signal Processing, Redondo Beach, CA, pp. 273—278, Dec.</i> 1998.		

[Signature V	Examiner	ANT	ANDREW W. JOHNS	Date	9/26/05
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Information Disclosure Statement—PTO/SB/08a&b Matter No.: 171146.01

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		OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS	
Examiner initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the ltem (book, magazine, journal, serial, symposium, catalog, etc.)., date, page(s), volume-issue number(s), publisher, city and/or country where published.	TP.
-AUT	E	F. A. P. Petitcolas and R. J. Anderson, "Evaluation of copyright marking systems," <i>Proceedings of IEEE Multimedia Systems'99</i> , vol. 1, pp. 574—579, 7—11 June 1999, Florence, Italy.	,
ANT	F	M. D. Swanson, B. Zhu and B. Chau, "Object based transparent video watermarking," <i>Proceedings of IEEE Signal Processing Society 1997 Workshop on Multimedia Signal Processing</i> , June 23 — 25, 1997, Princeton, New Jersey, USA.	
ANT	G	T. Kalker and J. Haitsma, "Efficient detection of a spatial spread- spectrum watermark in MPEG video streams," <i>Proc. IEEE ICIP</i> , Vancouver, Canada, September 2000.	:
gran -	H	J. Dittman, M. Stabenau and R. Steinmetz, "Robust MPEG video watermarking technologies," <i>Proceedings of ACM Multimedia '98,</i> The 6th ACM International Multimedia Conference, Bristol, England, pp. 71-80.	
AN	1	M. K. Mihçak and R. Venkatesan, "A tool for robust audio information hiding: A perceptual audio hashing algorithm," <i>submitted to Workshop on Information Hiding,</i> Pittsburgh, PA, 2001.	

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Substitute for form 1449/PTO	Application Number	09/843,287	
	Filing Date	4/24/2001	
INFORMATION DISCLOSURE	First Named Inventor	R Venkatesan	
STATEMENT BY APPLICANT	Art Unit	2621	
(Use as many shoets as necossary)	Examiner Name	ANDREW W JOHNS	
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Sheet 1

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	09/843,287		
Filing Date	4/24/2001		
First Named Inventor	Ramarathnam Venkates		
Art Unit	2621		
Examiner Name	ANDREW W JOHNS		
Attorney Docket Number	MS1 0794US		

			U. S. PATEN	Classification		
Examiner Cite Initials* No.1		Document Number Number-Kind Code ^{2 (* known)}	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
AU		US- 20020126872 A1	9/12/2002	Brunk, Hugh L., et al.	382/100	
ANT		US- 5802518 A	09/01/1998	Karaev et al.	707/9	
ANT		US- 6522767 B1	2/18/2003	Moskowitz et al.	382/100	
ANT		US- 6532541 B1	3/11/2003	Chang, et al.	713/176	
ANT		US- 6625295 B1	9/23/2003	Wolfgang, et al.	382/100	
		US- 6647128 B1	11/11/2003	Rhoads	382/100	
ANT		US- 6674861 B1	1/6/2004	Xu, et al.	380/252	
ANT		US- 6768809 B2	7/27/2004	Rhoads, et al.	382/100	
ANT		US- 6799158 BA	9/28/2004	Fischer, et al.	704/205	
ANT		us- 6839673 B/	1/4/2005	Choi, et al.	704/273	
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Substitute for form 1443/FTO	Application Number	09/843,287			
INFORMATION DISCLOSUF	E Filing Date	4/24/2001			
STATEMENT BY APPLICAN	T First Named Inventor	Ramarathnam Venkates			
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(Use as many sheets as necessary)	Examiner Name	ANDREW W JOHNS			
Sheet 2 of 2	Attorney Docket Number	MS1 0794US			

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
ANT		Lin et al., "A Robust Image Authentication Method Distinguishing JPEG Compression from Malicious Manipulation", IEEE Transactions, Feb. 2001, Volume 11, No. 2, pp. 153-168	
AN		Schneider et al., "A Robust Content Based Digital Signature for Image Authentication", Proceedings, International Conference, Sept. 1996, Vol. 3, pp. 227-230	
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Examiner	ANT	ANDREW W. JOHNS	Date	9/26/05
Signature	7/0	PRIMARY EXAMINER	Considered	11201-2

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